

## 6.5 Budgeting





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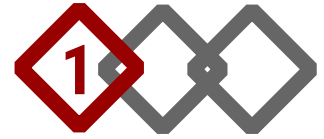
Examples

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# Definitions



## Definitions



- A **budget** is a financial plan for your income over a defined period of time.
  - ▷ Planning ahead to be ready for the unexpected, rather than being reactive to what happens in the now.
- **Net Income (take home pay)** is equal to total, or gross, income minus taxes.
  - ▷ *Net Income = Gross Income – Taxes*
- **Disposable income** is the money left over after taxes and expenses.
  - ▷ *Disposable income = Net income – Expenses*

# 2

## Steps to Creating a Budget



## Steps to creating a budget



- Big picture, we need to know the following to create a budget:
  - ▷ What is your monthly net income (after tax income)? What are your necessary expenses? How much disposable income is left?
- Steps to create a budget:
  1. Calculate monthly income
  2. Calculate monthly expenses
  3. Subtract expenses from income
  4. Allocate any remaining funds or make adjustments



## Steps to creating a budget

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### Step 1 – Calculate monthly income

■ Example: Hannah makes \$45,000 per year and expects to pay approximately 20% for all taxes.

- a) How much of her income can Hannah expect to pay in taxes?

$$\text{Taxes} = \text{Salary} \times \text{Tax rate} = 45,000 \times \frac{20}{100} = \$9,000$$

- b) What is Hannah's net income?

$$\text{Net Income} = \text{Salary} - \text{Taxes} = 45,000 - 9,000 = \$36,000$$

- c) What is Hannah's monthly take-home pay?

$$\text{Monthly Take Home Pay} = \frac{\text{Net income}}{12} = \frac{36,000}{12} = \$3,000$$



## Steps to creating a budget

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### Step 2 – Calculate monthly expenses

Example: Using the information provided in the given table, determine how much monthly income would be necessary to budget for

a) loan fees over the 9-month academic year.

$$\frac{\text{Loan fees}}{9} = \frac{172}{9} = \$19.11$$

b) all the expenses of over the 9-month academic year.

$$\frac{\Sigma(\text{all expenses})}{9} = \frac{19,157 + 10,235 + \dots + 172}{9} = \frac{34,786}{9} = \$3,865.11$$

Estimated Cost of Local College Next Academic Year	
Budget Category	On-Campus Student
University Fees	\$19,157
Room & Board	\$10,235
Books & Supplies	\$1806
Transportation	\$730
Personal	\$1623
Health Insurance	\$1063
Loan Fees	\$172





## Steps to creating a budget

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### Step 3 – Subtract expenses from income

Example: Monica has a yearly salary of \$28,700. Her employer withholds \$3052 in state and federal taxes and \$2180 in FICA taxes throughout the year. She has the following monthly costs: transportation is \$220, cell phone bill is \$50, student loans require \$180 in repayment, and rent is \$350. She is using the average monthly costs for each of the following in order to gain an idea of other monthly expenses: utilities are \$260, internet is \$105, health insurance is \$299, and groceries are \$210.

a) What is Monica's monthly net pay amount?

Monthly

$$\text{Net Income} = \text{Salary} - \text{Taxes} = 28,700 - (3,052 + 2,180) = \$23,468 \rightarrow \frac{23,468}{12} = \$1,955.67$$

b) How much money is left each month for discretionary spending after all necessities are accounted for?

$$\begin{aligned} \text{Disposable income} &= \text{Monthly Take Home Pay} - \text{Expenses} \\ &= 1,955.67 - (220 + 50 + \dots + 210) \\ &= \$281.67 \end{aligned}$$



## Steps to creating a budget



### Step 4 – Allocate remaining funds or make adjustments

Example: Determine the approximate monthly cost of spending \$16.64 on takeout at least 3 times a week. (Assume four weeks in a month.)

$$\text{Monthly cost} = \text{Expense} \times \# \text{ times} \times \# \text{ weeks} = 16.64 \times 3 \times 4 = \$199.68$$



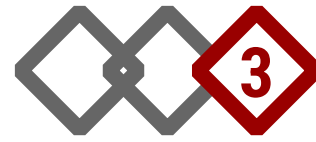
## Budgeting Rule



- Ultimately, a sound budget will cover all of your needs, some of your wants, and put you on a path of saving for emergencies and the future.
- One such general recommendation is the **50/30/20 budgeting rule** is to allow:
  - ▷ 50% of your net income for necessities,
  - ▷ no more than 30% for wants
  - ▷ and at least 20% for savings and paying down debt.

3

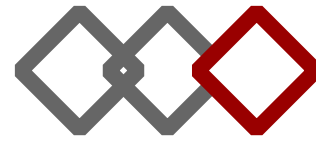
Examples



## Example #1

The Lees have a combined net income of \$7026 a month. Find the amount they should allot for each category if they aim to follow the 50/30/20 rule for their budget. Round your answers to the nearest cent, if necessary.

Necessities: \$3,513  
Wants: \$2,107.80  
Savings: \$1,405.20



## Example #2

Dwayne is self-employed. Based on last year, his projected state and federal taxes for this year will be approximately \$10,200. Determine how much Dwayne should put aside...

- a) each month in order to have enough to pay his estimated quarterly taxes?
- b) each quarter in order to have enough to pay his estimated quarterly taxes?

Monthly = \$850  
Quarterly = \$2,550